AMENDMENT TO THE CLAIMS

1-13. (Cancelled).

14. (Previously presented) A posterior vertebral support assembly, comprising:

an interspinous wedge configured to be inserted between the spinous processes of two vertebrae, wherein the wedge includes:

first and second opposing ends, each end comprising a recess shaped to receive the respective spinous processes;

a longitudinal axis extending through said recesses;

first and second lateral sides extending from the first end to the second end; and

at least one elastically deformable zone;

two compressive lateral elements disposed on either lateral side of the wedge in a longitudinal direction, wherein the compressive lateral elements are deformable between releasing positions and compressive positions; and

two lateral transmission elements disposed between the compressive lateral elements and the wedge, and configured to selectively press against the lateral sides of the wedge substantially midway between the first and second ends in a transverse direction near the elastically deformable zone; wherein a force applied by the lateral transmission elements against the wedge varies based on the relative spacing between the compressive lateral elements as they move between the releasing position and the compressive position in response to spinal flexion; each lateral

transmission element disposed entirely on a respective lateral side of said longitudinal axis.

15. (Previously presented) The support assembly of claim 14 wherein the zone has a limit of compressibility in the transverse direction, and wherein the limit is reached at a predetermined tilted position.

16. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements have a limit of deformation in the transverse direction, and wherein the limit is reached at a predetermined tilted position.

17. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements are elastically deformable between the releasing and compressive positions.

18. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements are elastically deformable generally along an axis of the spine.

19. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements are independent of one another, and wherein each element is connectable to a treated vertebra with one end and to another treated vertebra by its other end.

20. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements include eyelets or anchorage pieces designed to receive pedicular anchorage screws.

21. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements are adapted to pass beneath the laminae of the overlying vertebra.

22-25. (Cancelled).

26. (Previously presented) The support assembly of claim 14 wherein the compressive lateral elements are deformable between releasing positions, which they occupy when the vertebrae are in lordosis or when the spinal column is extended, and wherein they are relatively spaced apart from the wedge in the transverse direction, and compressive positions, which they occupy when the spinal column is in flexion, and wherein they are relatively close to the wedge in the transverse direction.

27. (Previously presented) The support assembly of claim 26 wherein the two lateral transmission elements are disposed in a manner to press against the wedge in the transverse direction when the compressive lateral elements are displaced in said compressive position.

28. (Previously presented) A posterior vertebral support assembly, comprising:

an interspinous wedge configured to be inserted between the spinous processes of two vertebrae, wherein the wedge includes:

first and second opposing ends, each shaped to receive the respective spinous processes,

first and second lateral sides extending from the first end to the second end, and

at least one elastically deformable zone;

a strap engageable around at least two spinous processes and the wedge while the wedge ends receive the spinous processes; the strap forming a first and a second compressive lateral element disposed on opposing lateral sides of the wedge; the first and second compressive lateral elements being configured to maintain the position of the wedge; and

first and second lateral transmission elements disposed respectively between the first compressive lateral element and the wedge and the second compressive lateral element and the wedge, the first and second lateral transmission elements being adapted to press against the lateral sides of the wedge substantially midway between the first and second ends in a transverse direction in response to forces applied by the first and second compressive lateral elements; the lateral transmission elements, while the wedge ends receive the spinous processes, not extending through a sagittal plane defined by the spinous processes in the space between the spinous processes.

29-32. (Cancelled).

33. (Previously presented) The support assembly of claim 28 wherein the wedge comprises two recesses with each recess bounded by two lugs, the lugs and recesses adapted to cradle their respective spinous processes.

34. (Cancelled).

35. (Previously presented) A posterior vertebral support assembly, comprising:

an interspinous wedge configured to be inserted between the spinous processes of two vertebrae, wherein the wedge includes:

first and second opposing ends, each shaped to engage with and to receive the respective spinous processes;

first and second lateral sides extending from the first end to the second end;

at least one elastically deformable zone;

a strap engageable around at least two spinous processes and the wedge, the strap forming a first and a second compressive lateral element disposed on opposing lateral sides of the wedge, the first and second compressive lateral elements being configured to maintain the position of the wedge;

first and second lateral transmission elements disposed respectively between the first compressive lateral element and the wedge and the second compressive lateral element and the wedge, the first and second lateral transmission elements being adapted to press against the lateral sides of the wedge substantially midway between the first and second ends in a

transverse direction in response to forces applied by the first and second compressive lateral elements;

wherein the first and second lateral transmission elements are each a small bar disposed between the compressive lateral elements and the wedge; and

wherein each small bar is connected to a support plate configured to transfer force from the lateral transmission elements to the elastically deformable zone.

36. (Currently amended) A posterior vertebral support assembly, comprising:

an interspinous wedge having:

a first end with a saddle-shaped receiver sized to receive and engage a spinous process of a first ~~and~~ vertebra;

a second end longitudinally opposite the first end with a saddle-shaped receiver sized to receive and engage a spinous process of a second vertebra;

a longitudinal axis extending through said saddle-shaped receivers of said first and second ends;

an elastically deformable zone between the saddle-shaped receivers;

a first lateral side adjacent the deformable zone;

a second lateral side adjacent the deformable zone and opposite the first lateral side; the distance between the first and second ends being greater than the distance between the first and second lateral sides;

first and second longitudinally extending compressive lateral elements disposed adjacent to the lateral sides of the interspinous wedge, but entirely spaced away therefrom; the compressive lateral elements being deformable between releasing positions and compressive positions and each being sized to extend from the first vertebra to the second vertebra and being shaped to connect to both the first vertebra and the second vertebra;

two lateral transmission elements respectively disposed between the compressive lateral elements and the lateral sides of the deformable zone; the two lateral transmission elements being configured to selectively increase and decrease loading against the lateral sides of the wedge near the elastically deformable zone in a direction transverse to the longitudinal axis when the compressive lateral elements move between the releasing and compressive positions.

37. (Previously presented) The support assembly of claim 36 wherein the compressive lateral elements include eyelets or anchorage pieces designed to receive pedicle screws that connect the lateral transmission elements to the first and the second vertebrae.

38. (Previously presented) The support assembly of claim 14 wherein displacement of the lateral transmission elements towards each other applies a compressive force to the wedge so as to urge the wedge first and second ends away from each other.

39. (Previously presented) The support assembly of claim 14 wherein, when the spinous processes are received in the corresponding recesses, the lateral transmission elements do not cross a sagittal plane defined by the spinous processes in the space between the spinous processes.

40. (Previously presented) The support assembly of claim 14 wherein the lateral transmission elements are bosses disposed between the compressive lateral elements and the wedge.

41. (Previously presented) The posterior vertebral support assembly of claim 28 where the wedge further comprises first and second saddle recesses formed on the first and second ends respectively; the wedge further comprising a longitudinal axis extending through the first and second saddle recesses; the lateral transmission elements not extending through the longitudinal axis.

42. (Previously presented) The posterior vertebral support assembly of claim 28 wherein the first and second lateral transmission elements are each a small bar disposed between the compressive lateral elements and the wedge.